

REMARKS

Claims 1-21 remain pending in the application

Claims 20 and 21 are amended to correct an antecedent basis issue (i.e., claim 14 refers to a “document,” not an “envelope”).

The § 101 rejection is respectfully traversed: the claims are directed to statutory subject matter.¹

The Examiner has newly cited Patent 6,701,304 to Leon. He is invited to consider claim 15 of Leon’s patent, which is directed to “A postage label.”

Just as claim 15 of Leon is properly statutory, so are the claims of the present application (which are drawn to an “envelope” or a “substrate”).

If the rejection is renewed, applicants will (again) appeal this application.

Claims 1-21 stand rejected over Leon and other art.

The Examiner misunderstands Leon’s disclosure. Contrary to the statement on page 4 of the Action, Leon does *not* disclose “an original envelope having encoded thereon a digital watermark...” A check of the on-line version of text of Leon’s patent will quickly confirm that there is no reference to any *digital* watermark.

There are three references to “watermark” in Leon: col. 2, line 43; col. 8, line 19; and col. 9, line 40.

The first and second references are essentially the same (one is in the “Summary of the Invention” section; the other is in the “Description of the Specific Embodiments”). The former reads:

The contents of the indicia can include human-readable and machine-readable data elements. Human-readable information includes texts and graphics (e.g., date, address, postage amount, and so on) that can be interpreted by an operator without the use of special translation equipment. Machine-readable information includes graphical representations and encoded texts (e.g., bar codes, FIM marks, data matrix, encoded texts, specially formatted texts, unintelligible texts, and others) that are not readily interpreted by the operator. The postage labels can also include identifier information that exhibits special characteristics and that can be used for authenticating the indicia. The identifiers include, for example, fluorescent strips, marks such as watermarks, micro printing, imprints

¹ As noted by the Supreme Court, “anything under the sun that is made by man,” with the exception of “laws of nature, physical phenomena, and abstract ideas,” is patentable subject matter. *Diamond v. Chakrabarty*, 447 U.S. 303, 206 USPQ 193 (1980).

using special ink and/or taggants, and other features, as described below. The identifier information assists in the prevention and detection of fraud, again as described below.

Leon here describes his indicia as including three types of elements: (a) human readable data; (b) machine-readable data; and (c) other, authenticating features.

Leon does *not* describe his watermark as being one of the machine-readable data elements. If Leon contemplated a digital watermark of the sort presently claimed (i.e., representing plural bits of data), then he would have listed it as one of the machine-readable data elements. He did not.

Instead, his listing of “marks such as watermarks” among the third class of features – neither human-readable nor machine-readable – indicates that he is speaking of conventional paper watermarks – of the type that have been formed in fine papers for centuries.

The *Encyclopedia Britannica* (on-line) defines a watermark as a “design produced by creating a variation in the thickness of paper fibre during the wet-paper phase of papermaking.” The Britannica goes on to note, “Watermarks are often used commercially **to identify** the manufacturer or the grade of paper. They have also been used to detect and prevent counterfeiting and forgery.” (See Exhibit A, attached.)

The on-line encyclopedia *Wikipedia* defines a watermark as “a recognizable image or pattern in paper that appears lighter when viewed by transmitted light (or darker when viewed by reflected light, atop a dark background).” It goes on to explain, “A watermark is made by impressing a water coated metal stamp or dandy roll onto the paper during manufacturing. Watermarks were first introduced in Bologna, Italy in 1282; they have been used by papermakers **to identify** their product, and also on postage stamps, currency, and other government documents to discourage counterfeiting.” (See Exhibit B, attached.)

When Leon speaks of watermarks as “**identifier** information that exhibits special characteristics and that can be used for authenticating the indicia” he is referring to the identifying functions highlighted by both the *Encyclopedia Britannica* and *Wikipedia* (i.e., “Watermarks are often used commercially **to identify** the manufacturer or the grade of paper” and “they have been used by papermakers **to identify** their product”).

The only other reference to "watermark" in Leon (col. 9, line 40) states

Under normal lighting conditions, the imprints can be viewed in similar ways as **watermarks**, but are typically not conspicuous.

Again, this usage confirms that Leon is speaking of conventional paper watermarks – indicating that they are conspicuous (i.e., by distinguishing the inconspicuousness of his imprints). *Digital* watermarks are a form of steganographic encoding, and are thus designed to not to be viewable. (The Detailed Description of the present specification begins by explaining (page 4, lines 9-11):

Digital watermarking technology, a form of steganography, encompasses a great variety of techniques by which plural bits of digital data **are hidden** in some other object **without leaving human-apparent evidence of alteration or data representation**.

Again, this is different than Leon's (visible, paper) watermark.

Since Leon does not teach that for which it has been cited (i.e., a *digital* watermark), the rejection fails to establish *prima facie* obviousness. Thus, other points that might be raised, e.g., concerning the art and claims, are not belabored in view of such failing.

Under penalty of perjury, the undersigned certifies that the materials submitted as Exhibits A and B are true and accurate copies of what they purport to be, i.e., web pages for the subject "Watermark" from the *Encyclopedia Britannica* and *Wikipedia on-line* encyclopedias.

Favorable reconsideration and passage to issuance are solicited.

Date: October 28, 2004

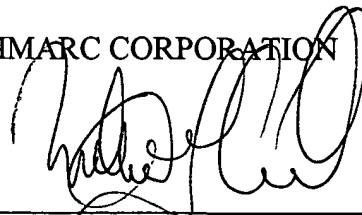
CUSTOMER NUMBER 23735

Phone: 503-885-9699
FAX 503-885-9880

Respectfully submitted,

DIGIMARC CORPORATION

By



William Y. Conwell
Registration No. 31,943